



# Masoud Hassanzadeh Makoui

Professor Assistant of Immunology

## Profile

I am a Doctor of Veterinary Medicine and PhD in Immunology with over 10 years of academic, clinical, and translational research experience. As an Assistant Professor of Immunology at Zanjan University of Medical Sciences, I teach diverse student groups while integrating rigorous, research-driven approaches. I serve as Technical Manager of an advanced Immunology, Serology, and Molecular Diagnostics Laboratory and own a private research lab focused on innovative diagnostics and therapeutics. I contribute to research governance as a member of the Animal Research Ethics Committee and the Cancer Gene Therapy Research Center, and I am also the Head of the Student Research Committee at Zanjan University of Medical Sciences. My areas of expertise include monoclonal antibody development and cancer immunology.

## Education

- **Doctorate Degree in Veterinary Medicine**  
Tabriz
- **Ph.D. in Medical Immunology**  
Tehran University of Medical Sciences

## Employment History

- **Assistant Professor of Immunology**  
Zanjan University of Medical Sciences
- **Technical Manager of Immunology, Serology and Molecular Diagnostics Laboratory**  
Zanjan University of Medical Sciences
- **The Head of the Student Research Committee**  
Zanjan University of Medical Sciences

## Projects

- **Design and development of a multi-epitope anti-cancer vaccine based on CEA, KRAS, and CD133 antigens, and evaluation of its efficacy alone and in combination with anti-PD-1 inhibitory antibodies in colorectal cancer**  
Zanjan University of Medical Sciences
- **Investigation of the prevalence and antibody titers of HCV, HBsAb, and HIV in laboratory samples of patients referring to Mousavi Hospital in Zanjan during 2021–2025: A retrospective study**  
Zanjan University of Medical Sciences

## Details

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Address: Immunology Department  
,Zanjan University of Medical  
Sciences, Zanjan, Iran.

## Skills

Inventor of four Locally patented  
Monoclonal Antibodies

Monoclonal Antibody Production

Recombinant Protein Production

Immunology Related Techniques

Systematic Review and Meta-Analysis

Active Reviewer for Meta-Analysis  
studies in Springer Nature Publication

## Language

English	★★★★☆
Turkish	★★★★☆
Persian	★★★★★
Azerbaijani	Mother tongue
German	A1

- Investigation of electrolyte changes in serum and lavage fluid of allergic asthmatic mice and their relationship with lung immunopathological changes.  
Zanjan University of Medical Sciences  
IR.ZUMS.AEC.1404.004
- Production of monoclonal antibodies against tumor markers associated with colorectal cancer and determination of their expression pattern in Iranian patients with colorectal cancer  
Tehran University of Medical Sciences  
IR.TUMS.AEC.1402.193
- Production of specific monoclonal antibodies against tumor markers GATA3, SOX10, CK5/6 and HER2 associated with breast cancer  
Tehran University of Medical Sciences  
IR.TUMS.AEC.1403.108
- Production of monoclonal antibodies against tumor markers P53, Ki67, and estrogen and progesterone receptors and their application for tumor cell classification in Iranian patients with breast cancer  
Tehran University of Medical Sciences  
IR.TUMS.SPH.REC.1399.119

## Researches

- Effect of peroxybenzoic acid and hydroxybenzoic acid on allergic asthma  
BMC Biomedical Engineering  
2025
- Development and evaluation of a novel E7 multi-epitopic vaccine for human papillomavirus type 16: design, expression, purification, and immunological characterization  
BMC Infectious Diseases  
2025
- The Role of Mast Cells in the Development and Advancement of Endometriosis  
American Journal of Reproductive Immunology  
2025
- Effect of Peroxybenzoic acid and Hydroxybenzoic acid on allergic asthma  
Accepted but not published in BMC Biomedical Engineering  
2025
- Investigating the Co-Expression Rate of HER2 and HER3 Biomarkers in Cancer Patients: A Systematic Review and Meta-Analysis  
Asian Pacific Journal of Cancer Prevention  
2024
- Effects of bazedoxifene on endometriosis in experimental animal models: A systematic review and meta-analysis  
Turkish Journal of Obstetrics and Gynecology  
2024
- Individual effects of GSTM1 and GSTT1 polymorphisms on the risk of polycystic ovarian syndrome: A systematic review and meta-analysis  
Turkish Journal of Obstetrics and Gynecology  
2024
- State of the art in CAR-based therapy: In vivo CAR production as a revolution in cell-based cancer treatment  
Cellular Oncology  
2025
- Hypertension, Lifestyle Factors, and Breast Cancer Outcomes: A Decade-Long Retrospective Cohort Study  
Journal of Advances in Medical and Biomedical Research  
2025
- Unveiling the connection: asthma and endometriosis – a comprehensive systematic review and meta-analysis  
Allergologia et immunopathologia  
2025
- Effect of HER3 Overexpression on Survival Outcomes in Pancreatic Cancer Patients: A Systematic Review and Meta-Analysis  
Accepted but not published in Asian Pacific Journal of Cancer Prevention  
2025
- Correlation between the existence of serum autoantibodies and the risk of endometriosis: A systematic review and meta-analysis  
Turkish Journal of Obstetrics and Gynecology  
2024
- Clinico-pathological and prognostic significance of a combination of tumor biomarkers in Iranian patients with breast cancer  
Clinical Breast Cancer  
2024
- Cross-Reactivity of HBe Antigen-Specific Polyclonal Antibody with HBc Antigen  
Viral immunology  
2023

- **Novel Monoclonal Antibodies Specific for Human Ki67 and P53 Tumor Markers in Breast Cancer Tissue Samples**  
Iranian Journal of Immunology  
2023
- **Generation and Characterization of Novel Diagnostic Mouse Monoclonal Antibodies Against Human Estrogen Receptor Alpha and Progesterone Receptor**  
Asian Pacific Journal of Cancer Prevention  
2022
- **Effects of Vitamin D on Left Ventricular Ejection Fraction in Patients with Systolic Heart Failure: A Double-Blind Randomized Clinical Trial**  
International Journal of Endocrinology and Metabolism  
2020
- **Association between MTHFR gene polymorphism and susceptibility to autism spectrum disorders: systematic review and meta-analysis**  
Research in Autism Spectrum Disorders  
2020
- **Vitamin D receptor gene polymorphism and susceptibility to asthma: meta-analysis based on 17 case-control studies**  
Annals of Allergy, Asthma & Immunology  
2020
- **Characterization of Aeromonas hydrophila from Perch (Perca fluviatilis) of Aras Dam, Iran**  
Journal of Applied Science and Agriculture  
2014
- **Evaluation of antibacterial properties of edible oils and extracts of a native plant, Ziziphora clinopodioides (mountains' Kakoty), on bacteria isolated from urinary tract**  
Life Science Journal  
2013
- **Production and purification of recombinant HBcAg of hepatitis B virus and investigation of its structural and functional characteristics**  
Iranian Journal of Infectious Disease and Tropical Medicine  
2023
- **Interleukin-10 Gene Promoter Polymorphisms and Susceptibility to Asthma: Systematic Review and Meta-analysis**  
Biochemical Genetics  
2021
- **Vitamin D receptor gene polymorphisms and the risk of the type 1 diabetes: a meta-regression and updated meta-analysis**  
BMC Endocrine Disorders  
2020
- **Vitamin D receptor gene polymorphisms and the risk of the type 1 diabetes: a meta-analysis based on 40 case-control studies**  
Europe PMC  
2020
- **Efficacy of different live Newcastle disease vaccines in broiler farms**  
European Journal of Zoological Research  
2014
- **Effect of hormones PMSG, melatonin and CIDR on induction of estrus and reproductive performance of the Shal ewes in off-season reproduction**  
International Journal of Biosciences  
2014
- **Evaluation of contamination of cattle's raw milk to Johne's disease in farms of Kaleybar region**  
Life Science Journal  
2013